



Armaments Technology Facility



LIGHT ARMAMENT DIVISION

Data Acquisition System (DAS)

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Data Acquisition System

Agenda

- Concept
 - Benefits
 - Accomplishments
 - Goals
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Data Acquisition System Scope

- The Data Acquisition System (DAS) will automate data collection, Analysis, and transmission for use by the Armament Technology Facility (ATF) at Picatinny Arsenal.
 - The DAS will be requires to function in the ATF's indoor and outdoor testing ranges.
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Data Acquisition System Background

- The current method of data collection is manpower intensive.
 - The customer must be physically present to witness the test.
 - Current equipment is outdated.
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Data Acquisition System DAS Systems

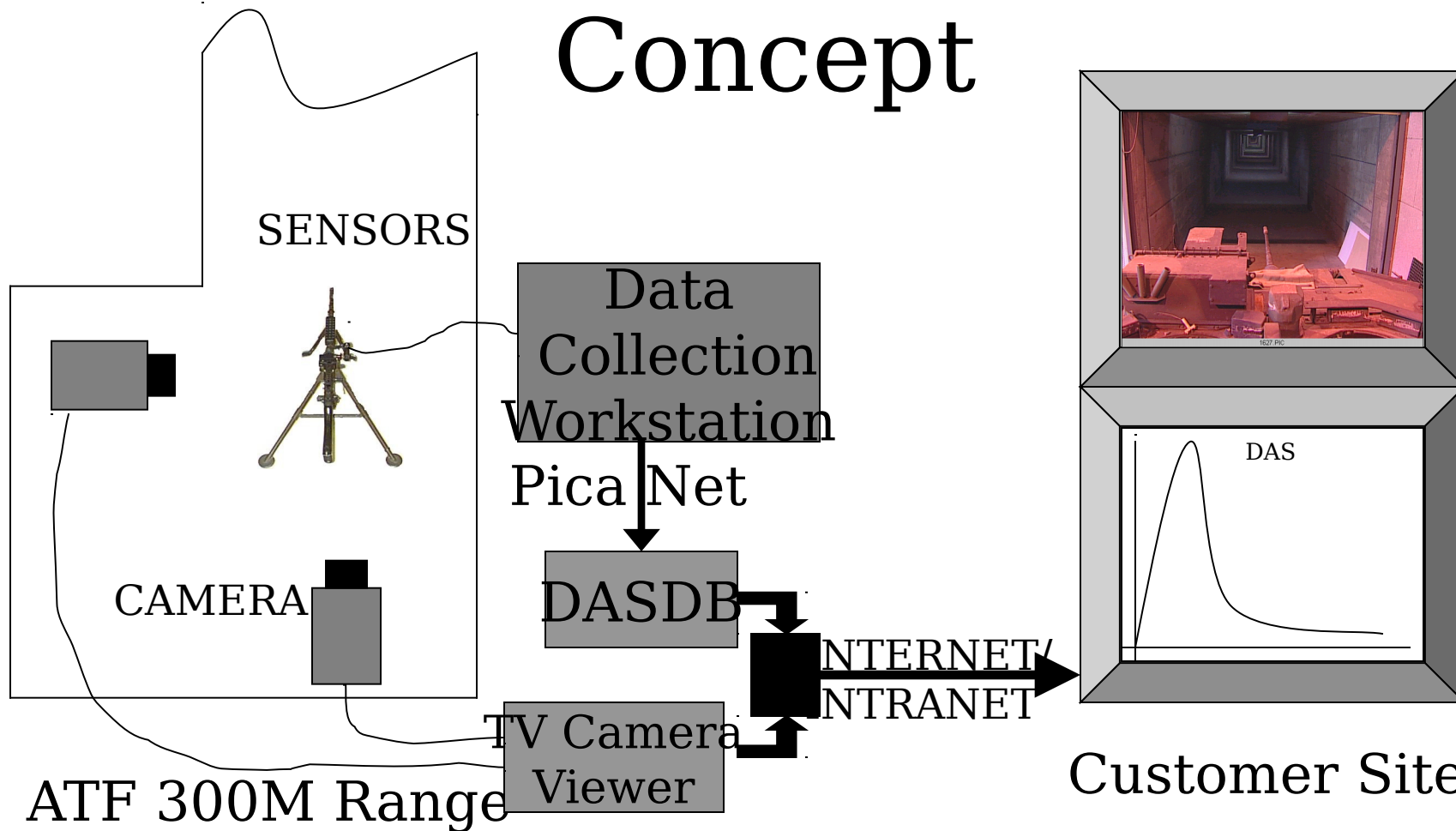
- Data Collection Workstation (DCW)
 - DAS Database (DASDB)
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Data Acquisition System Concept





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Data Acquisition System Data Collection Workstation (DCW)

- Intel Pentium Computer
 - 36 Sensor Channels (Upgradeable)
 - Network Connection to DASDB
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Data Acquisition System DAS Database (DASDB)

- Oracle Database
 - Located in the Picatinny Server Farm
 - Storage 1 Terabyte of data (upgradeable)
 - Web based interface for all users
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Data Acquisition System

Comparison

Current System

- 4 Channels
- 12 bit Resolution
- 1 MHz Sample Rate
- Storage: Floppy Disk

Data Acquisition System

- 36 Channels
- 12 bit Resolution
- 20 MHz Sample Rate
- Storage: Database



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Data Acquisition System

Benefits

- Reduce manpower for data collection
 - Increase data collection capabilities
 - Reduce customer cost
 - Greater access to archived test data
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Data Acquisition System Accomplishments

- Purchased All Hardware
 - Begun Validation
 - Designed Software for EPVAT
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Data Acquisition System Near Term Goals

- Design Software for Generic Test
 - Determine Standard Sensor Suite
 - Investigate Additional Sensors
 - Develop more User Friendly Interface for Database access.
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Data Acquisition System Long Term Goals

- Investigate New Sensor Technologies
 - Develop New Standard Tests
 - Investigate Feasibility of Universal Test Stand
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Data Acquisition System Summary

The DAS initiative will significantly enhance the capabilities and efficiency of the Armament Technology Facility (ATF).
